

passenger compartment, said portion containing said occupying item;

- b) Means to receive reflected illumination from said surfaces of said occupying item;
- c) Means to process said received illumination to create an electronic signal characteristic of said occupying item;
- d) [Computational] Pattern recognition means to identify said occupying item within said passenger compartment from said electronic signal; and
- e) Output means in response to said identification to affect [another]at least one other system within said vehicle.

19 (amended). In a motor vehicle having an interior passenger compartment having a front seat, said compartment having contents comprising objects and at least one occupant, an interior monitoring system comprising:

- a) Pattern recognition [M]means to identify at least one of said contents, said means comprising means to illuminate said contents of said compartment;
- b) Means to determine the location of said identified contents within said passenger compartment; and
- c) Output means in response to said location determination to affect [another]at least one other system within said vehicle.

28 (amended). In a motor vehicle having an interior passenger compartment having contents comprising objects and at least one occupant, each said occupant having at least one part, an

interior monitoring system comprising:

- a) Pattern recognition [M]means to identify at least one part of one [of] said occupant,said means comprising means to illuminate each said part to be identified;
- b) Means to determine the location of each said identified part within said passenger compartment[.]; and
- c) Output means in response to said location determination to affect [another]at least one other system within said vehicle.

38 (amended). In a motor vehicle having an interior passenger compartment having (i) at least one occupant, said occupant having eyes, (ii) a windshield and (iii) a rear view mirror, a monitoring system comprising:

- a) Means to determine the direction of an external light source;
- b) Pattern recognition [M]means to determine the location of the eyes of said occupant; and
- c) Means responsive to the direction of said external light source and said location of said eyes to automatically activate a light filter between said external light source and the eyes of said occupant.

46 (amended). In a motor vehicle having an interior passenger compartment having at least one occupant, said occupant having ears, a monitoring system comprising:

- a) Means to determine the presence and direction of a source of unwanted sound;

b) Pattern recognition [M]means to determine the location of the ears of said occupant; and

c) Means responsive to the direction of said unwanted sound and said location of said ears to automatically generate and transmit sound waves to cancel the unwanted sound at the ears of said occupant.

47 (amended). In a motor vehicle having an interior passenger compartment having doors, windows and containing objects, an interior monitoring system comprising:

a) Means to illuminate a portion of said vehicle interior passenger compartment with energy at at least one frequency;

b) Resonator means, responsive to said illumination, attached to at least one of said doors, windows and objects having a resonant frequency at substantially nearly the same frequency as said at least one illumination frequency;

c) Means to receive resonant illumination from said resonator means;

d) Pattern recognition [M]means to process said received resonant illumination to determine the location of said illuminated resonator; and,

e) Output means in response to said illuminated resonator location determination to affect [another]at least one other system within said vehicle.

52 (amended). In a motor vehicle having an interior passenger compartment containing at least one occupant, an occupant

recognition system comprising:

- a) Means to illuminate said occupant;
- b) Means to receive reflected illumination from said occupant;
- c) Means to process said received illumination to create an electronic signal characteristic of the occupant;
- d) Pattern recognition [M]means to identify said occupant from said electronic signal; and
- e) Output means in response to said identification to affect [another]at least one other system within said vehicle.

61 (amended). In a motor vehicle having an interior passenger compartment containing at least one occupant, an occupant attentiveness detection system comprising:

- a) Means to illuminate said occupant;
- b) Means to receive reflected illumination from said occupant;
- c) Means to process said received illumination to create an electronic signal;
- d) Pattern recognition [M]means to determine the attentiveness of said occupant from said electronic signal; and,
- e) Output means in response to said attentiveness determination to affect [another]at least one other system within said vehicle.

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Please add new additional claims 63, et seq. :